

ANDRYUSHCHENKO, O.N.; PASHIN, V.I.; DUNKE, N.A.

Natural conditions in fish hatcheries of White Russia. Trudy Biol.  
sta. na oz. Naroch' no.1:37-53 '58. (MIRA 12:7)  
(White Russia--Fish ponds)

ANDRYUSHCHENKO, O.N.

Natural history regions of the Caspian lowland. Trudy Geofaka  
BGU no.1:137-220 '58. (MIRA 12:8)  
(Caspian Depression--Natural history)

ANDRYUSHCHENKO, O.N.

On the history of soil and geographical research in the Caspian  
Lowland. Trudy Geofaka BGU no.2:85-150 '58. (MIRA 13:5)  
(Caspian Lowland--Geographical research)  
(Caspian Lowland--Soil research)

DEMENT'YEV, Vasil'y Alokseyevich; ANDRYUSHCHENKO, Onufreiy Nesterovich;  
TETERINA, L.N., red.; SHALKOVSKAYA, A.V., red.; MORGUNOVA,  
G.M., tekhn. red.

[History of geography] Istoriia geografii. Minsk, Izd-vo M-va  
vysshego, srednego spetsial'nogo i professional'nogo obrazo-  
vaniia BSSR. Pt.1.[Geography in the ancient period and Middle  
Ages] Geografiia v drevnie i srednie veka. 1962. 138 p.

(MIRA 15:7)

(Geography, Ancient) (Geography, Medieval)

ANDRYUSHCHENKO, P. A.

Andryushchenko, P. A. "Transfusion of donor's blood during obstetrical and gynecological sepsis," Sbornik nauch. trudov, (Rost. n/D gos. med. in-t), Vol. I, 1948, p. 129-38

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

ANDRYUSHCHENKO, P. A.

Andryushchenko, P. A. and Kalantarova, N. M. "Cytological microscopy of smears from the cervix and the vagina under the influence of ceramycin", Sbornik nauch. trudov (Rost. obl. nauch.-issled. zhurnale-izvestiya), Issue 3, 1948, P. 68-71.

So: U-3261, 10 April 1953 (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

ANDRYUSHCHENKO, P.A.

Autotransfusion of blood accumulated in the abdominal cavity during extra-uterine pregnancy. Sovet.med. No.2:24-25 Feb 51. (CIML 20:6)

1. Candidate Medical Sciences. 2. Rostov-on-the-Don.

1. ANDR~~Y~~USHCHENKO, P. M., Eng.
2. USSR (600)
4. Electric Lines - Overhead
7. Operating a 110 Kv electric transmission line with wooden poles strengthened by coordinated bracing. Elek. sta. 23 No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.



ANDRYUSHCHENKO, P. M.

AID P - 1383

Subject : USSR/Electricity

Card 1/2 Pub. 26 - 10/30

Author : Andryushchenko, P. M., Eng.

Title : Lightning protection of 110-kv transmission lines by wooden angle braces.

Periodical : Elek. Sta., 2, 32-34, F 1955

Abstract : The author describes the lightning protection used at one of the southern power systems of the USSR which uses wood towers. The protection consists of a wooden angle brace fastened to the pole below the conductor. In 1953, which was a year of heavy lightning storms in that part of the USSR, this protection was not satisfactory. The author says that the reasons of this fact are not quite clear. They may consist in an insufficient degree of correlation of insulating properties of wood and

AID F 1383

Elek. Sta., 2, 32-34, F 1955

Card 2/2 Pub. 26 - 10/30

in the faulty adjusting of gap spacing. He considers that by grounding the braces the efficiency of this type of protection could be increased. 2 drawings, 1 table

Institution: None

Submitted : No date

ANDRYUSHCHENKO, P.M., inzh.

Automatic air supply to the tanks of oil pressure systems of hydro-  
electric power stations. Elek. sta. 30 no. 2:81 F '65. (MIRA 18:4)

IVANUSHKIN, P.F.; SOKOLOV, L.N.; ANDRYUSHCHENKO, P.P.; KIRITSEV, A.D.;  
KOSTYUCHENKO, N.T.

Ratio of the cross-sectional area of forged metal to that of the  
original blank following alternate deformation in different directions.  
Kuz.-shtam. proizv. 1 no.9:9-10 S '59. (MIRA 12:12)  
(Forging)

L 19189-63  
ACCESSION NR: AR3004202

EWP(k)/EWP(q)/EWT(m)/BDS - AFFTC/ASD Pf-4 JD/HW  
S/0276/63/000/005/V008/V008

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 5V42

AUTHOR: Sokolov, L. N.; Kiritsev, A. D.; Andryushchenko, P. P.; Kostyuchenko, N. T.

TITLE: Effect of forging reduction ratio on mechanical properties of forgings,  
from a 20t ingot of steel 45

CITED SOURCE: Sb. Nauchn. tr. Zhdanovsk. metallurg. in-t, vy\*p 8, 1962, 140-145

TOPIC TAGS: forging method, anisotropy forging, forging reduction ratio, steel 45

TRANSLATION: The total forging reduction ratio is determined as the product of particular forging reduction ratio during draw-out without taking into account the forging reduction ratio at upsetting. Investigations were carried out on forgings of 20t ingots from steel 45 at 40% upsetting and elongation with ukovs of 1.5 to 7. Anisotropy of mechanical properties, that was greater in grain direction, was observed in forged metal; sigma sub b sigma sub s depend little on forging reduction ratio and on the direction of grain in the forging; psi, delta and  $\epsilon_k$  change more markedly when forging reduction ratio increases. Forging reduction ratio of 2.5 to 3.0 should be considered optimum in forging without

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L 19189-63

ACCESSION NR: AR3004202

upsetting, in order to obtain isotropic properties; in the case when there is  
upsetting optimum forging reduction ratio is 3 to 4. Four figures, 6 references.  
I. Gendlina.

DATE ACQ: 21Jun63

SUB CODE: IE

ENCL: 00

Card 2/2

SAMOYLOV, A.N.; ANDRYUSHCHENKO, P.V.

Revitalization of sunflower varieties in the area of the Armavir  
Oil and Fat Combine. Masl.-zhir. prom. 24 no.12:37-38 '58.  
(MIRA 11:12)

1. Armavirskiy maslozavod.  
(Krasnodar Territory--Sunflower)

ACC NR: AN700644;4 SOURCE CODE: HU/9002/67/000/037/0003/0003

AUTHOR: ~~none~~ ANDRYUSHCHENKO, S. A.

ORG: none

TITLE: Soviet Lt. Gen. visits Budapest

SOURCE: Magyar Nemzet, no. 37, 14 Feb 67, p. 3, col. 4

TOPIC TAGS: military personnel, ~~Soviet general, liberation anniversary~~  
MILITARY STATUS

ABSTRACT: On 13 February Lt. Gen. S. A. Andryushchenko led a group of high-ranking representatives from the headquarters of the Soviet troops temporarily stationed in Hungary on a visit to the Budapest City Hall on the 22nd anniversary of the liberation of Budapest. [KS]

SUB CODE: 15/ SUBM DATE: none/ ATD PRESS: 5116

Card 1/1

UDC: none



ANDRYUSHCHENKO, V.A.(Leningrad)

Note on A.V.Maioresv's paper "Operational safety of automatic regulators."  
Avtom. i telem. 18 no.1:92 Ja '57. (MLBA 10:7)  
(Automatic control)

88346

16.9500 (1031, 1121, 1132)

S/024/60/000/006/013/015

26.2195

E191/E485

AUTHOR: Andryushchenko, V.A. (Leningrad)

TITLE: ~~On the Conditions for Eliminating Discontinuous Motion~~  
of the Output Shaft in a Servo-Mechanical System

PERIODICAL: Izvestiya Akademii nauk, Otdeleniye tekhnicheskikh  
nauk, Energetika i avtomatika, 1960, No.6, pp.178-182

TEXT: Self-excited oscillations can arise in servo-mechanical systems operating at very low (creeping) speeds in the form of discontinuous motion of the output shaft even when the input shaft rotates at uniform speed. Such oscillations are due to the non-linear nature of the friction torque variation. The conditions under which such oscillations can be eliminated are examined. The servo-mechanical system consists of a detector (input) element, an amplifier, an output motor and a comparison element in series. A feedback connection between the detector element and the comparison element lies across the entire chain. It is shown that since a discontinuous motion of the output shaft is impossible so long as its velocity always exceeds zero, the required condition is fulfilled when the rate of variation of the deviation (error) is always negative. In examining the transfer function of the system, Card 1/3

83346

S/024/60/000/006/013/015  
E191/E485

On the Conditions for Eliminating Discontinuous Motion of the Output Shaft in a Servo-Mechanical System

the conception of "base frequency" is introduced which constitutes the abscissa of the intersection of the frequency axis by a certain section (corresponding to 20 db) of the logarithmic amplitude characteristics. With the help of this frequency, the transfer function is transformed into relative units in which relative time constants appear. It is shown that the sum of the two relative time constants must be smaller than a certain numerical constant. This is the necessary and sufficient condition to ensure a monotonous transient process. If this condition is not fulfilled the time constants must be reduced. This can be achieved by further "stiff" feedback connections across those links in the system whose time constants are to be reduced. The magnitude of such a feedback connection is derived

$$K_{\text{feedback}} > 2.66 (\tau_1 + \tau_2) - 1$$

It is also necessary sometimes to increase the time constant of the Card 2/3

88346

S/024/60/000/006/013/015  
E191/E485

On the Conditions for Eliminating Discontinuous Motion of the  
Output Shaft in a Servo-Mechanical System

motor. This can be achieved by introducing a "flexible"  
feedback connection in the system. Such a connection has the  
effect of increasing the apparent moment of inertia of the motor  
but this device is effective only in the linear range. Under  
certain conditions, both stiff and flexible feedback connections  
across those links of the system whose time constants should be  
reduced are necessary. There are 4 figures and 2 Soviet  
references.

SUBMITTED: August 5, 1960

Card 3/3

9.2000

77487

207/103-21-1-16/42

AUTHOR: Andryushchenko, V. A. (Leningrad)

TITLE: Electrets and Prospects of Using Them in Automation  
(A Review)

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 21, No 1,  
pp 139-142 (USSR)

ABSTRACT: The paper deals with the present state of the electret problem. Electret represents an electric analog of a magnet. The first electret samples consisted of mixtures of waxes and resins which were placed in strong constant electric field during their solidification. Up to now, the following organic compounds have been used for the design of electrets: waxes, resins, hydrocarbons, solid acids, alcohols, etc. The inorganic components (glass, porcelain, ceramics) have seldom been used for this purpose, and the information obtained on them is very inconsistent. The electrets made of inorganic compounds have higher hardness and thermal stability than electrets made of organic compounds; they also have various dielectric

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Electrets and Prospects of Using them in  
Automation (A Review)

1987  
007/203-21-1-10/Am

permeabilities (see Table A).

TABLE A

- (A) - Material:
- (B) - Titanium bicamphate:
- (C) - Strontium bicamphate, titanium.

| A          | MeTiO <sub>3</sub> | ZrTiO <sub>3</sub> | LaOAlO <sub>3</sub> | B  | CaTiO <sub>3</sub> | SiTiO <sub>3</sub> | C  | BiTiO <sub>3</sub> |
|------------|--------------------|--------------------|---------------------|----|--------------------|--------------------|----|--------------------|
| $\epsilon$ | 16                 | 22                 | 28                  | 20 | 10                 | 12                 | 20 | 10                 |

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Electrets and Prospects of Using Them in  
Automation (A Review)

77487

SOV/103-21-1-18/22

Sufficiently good electrets may be obtained from the mixture of waxes and resins without using a polarizing field during their solidification. In this case the charge appearing on poles equals 60-70% of the charge which would appear had the polarizing field been used. Increase in field intensity above 10-12 kv/cm does not cause a charge increase. The charge density depends on pressure, and at low pressures it is proportional to the pressure. The maximum current, obtained experimentally for organic electrets at melting, reaches a value of  $10^{-8}$  a/cm<sup>2</sup>. A method of electrets polarization used in the P. N. Lebedev Institute of Physics of AS USSR is described. A short outline of engineering applications of electrets is given. The photoelectret of the Bulgarian academician G. Nadzhanov is mentioned. Electrets may be used in telephone microphones replacing magnets. They may serve for d-c and a-c generation, as electrostatic relays, may be used in galvanometers, or in a string voltmeter. They are also used in valve arrangements. Use of electrets was recently suggested for memory devices of electronic

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Electrets and Prospects of Using Them in  
Automation (A Review)

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SOV/103-21-1-18/22

computing machines. The main characteristic property of the electret is that a charge on the surface of the dielectric does not spread but remains on it as if it were "glued". In conclusion it is said that the application of electrets enables simplification of diagrams of automatic regulation systems and of supply sources. The weight and dimensions of automatic arrangements thus become smaller. There are 6 figures; and 13 references, 7 Soviet, 2 Japanese, 1 German, 2 U.S. The U.S. references are: Gremant, A., The Use of Electrets in Electrical Instruments, Rev. Sci. Inst., Vol 11, 1940; Gutmann, F., The Electret, Rev. Mod. Phys., Vol 20, 1948; Freedman, L. A., Rosenthal, L. A., Apparatus for the Study of Electrets, Rev. Sci. Inst., Vol 21, 1950.

SUBMITTED: April 7, 1959

Card 4/4



ANDRYUSHCHENKO, V. A., Cand. Tech. Sci. (diss) "Investigation of Smoothness of Work of Tracking Systems at Low ("Creeping") Speeds," Leningrad, 1961, 18 pp (Leningrad Instit. of Aviation Instrument Building) 200 copies (KL Supp 12-61, 262).

16.8000(1121, 1132, 1068)

S/024/61/000/003/006/012  
E140/E463

AUTHOR: Andryushchenko, V. A. (Leningrad)

TITLE: The stability of servo-mechanisms at low velocities

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1961, No.2, pp.101-104

TEXT: It can be assumed that the curve of friction moment versus angular velocity for a drive shaft shows a zone of negative slope at low velocities. This naturally can give rise to relaxation oscillation of the system. It is shown that the existence of negative feedbacks in closed-loop systems reduces the unstable region of operation and increases the range of working velocities. There are 4 figures and 7 Soviet references.

SUBMITTED: February 24, 1961

Card 1/1

ANDRYUSHCHENKO, V.A. (Leningrad)

Concerning the stability of a servo system operating at low  
speeds. Izv. AN SSSR. Otd. tekhn. nauk, Energ. i avtom. no.3:  
101-104 My-Je '61. (MIRA 14:7)  
(Servomechanisms)

ANDRYUSHCHENKO, V.A.

Stability of servostystems with a negative motor time constant.  
Izv.vys.ucheb.zav.; prib. 4 no.5:59-65 '61. (MIKA 14:10)

1. Leningradskiy institut tochnoy mekhaniki i optiki. Rekomendovana  
kafedroy avtomatiki i telemekhaniki.  
(Servomechanisms)

KIDIN, I.N.; ANDRYUSHECHKIN, V.I.; MASLENKOV, S.B.; YEGORSHINA, T.V.

Concentration gradients following chromium saturation during  
rapid heating. Izv. vys. ucheb. zav.; chern. met. 7 no.11:  
174-179 '64. (MIRA 17:12)

1. Moskovskiy institut stali i splavov.

YENILEYEV, Kh. Kh.; ANDRYUSHCHENKO, V.K.

Effect of microelements on protein metabolism in germinating  
cotton seeds. Uzb. biol. zhur. 7 no.4:23-27 '63 (MIRA 17:4)

1. Tashkentskiy sel'skokhozyaystvennyy institut i Vsesoyuznyy  
nauchno-issledovatel'skiy institut khlopkovodstva, Tashkent.

ANDRYUSHCHENKO, V.K.

Effect of nitrogen fertilizer forms and trace elements on  
cotton fruiting. Agrobiologiya no.2:295-296 Mr-Apr '64.

(MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khlopko-  
vodstva, g. Tashkent.

TSELYUKO, Yu.I.; VISHNEVSKAYA, L.A.; GUL'YEV, G.F.; Prinsipal'nyye uchastnye:  
CHUDNOVSKIY, F.Ye.; ANDRYUSHCHENKO, V.K.

Temperature field of a 50-ton converter lining. Ogneupory  
30 no.10:15-21 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy i proyektnyy institut  
metallurgicheskoy promyshlennosti (for TSelyuko, Vishnevskaya).
2. Krivorozhskiy metallurgicheskiy zavod (for Gul'yev).



30479  
S/146/61/004/005/004/011  
D221/D305

9.1600

AUTHOR: Andryushchenko, V.O.

TITLE: On the problem of stability of tracker systems with negative time constant of the motor

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priboro-stroyeniye, v. 4, no. 5, 1961, 59-65

TEXT: A tracker system can be unstable at low speeds which is due to non-linear variation of the moment of friction; numerous investigations show that the curve of dependence of the moment of friction on speed has a negative inclination at low speeds. The transmission function of the tracker system is assumed to be  $W(p) = \frac{K_m}{p(1 + T_m p)}$ . During the transition  $T_m = \frac{J}{a + c}$  and  $K_m =$

$K_0 \frac{c}{a + c}$ , where  $J$  is the reduced moment of inertia of the motor;  $K_0$  determines the speed quality of the motor without load;  $a$  is the

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S/146/61/004/005/004/011  
D221/D305

On the problem of stability...

increment of friction moment with speed;  $c$  is the increment of the moment of the motor with speed. At low decreasing speeds  $a$  varies from 0 to  $\infty$ ; the mechanical characteristic can be assumed as linear, and  $c$  remains practically constant. At a certain speed,  $T_m$  and  $K_m$  tend to infinity, and then become negative, producing, therefore, self-excited oscillations. The author analyzes the stability conditions of tracker systems with  $T_m < 0$  and  $K_m < 0$ , consisting of an amplifier without inertia and AC motor with a rigid feedback. The above is characterized by a set of equations. The system is stable within the speed range  $0 \leq \Omega_2$  (Fig. 1), when  $K_0 T_2 > 1$ , and it is unstable in the range  $0 \leq \Omega_2$  with  $K_0 T_2 = 1$ . The whole system is unstable in the region  $0 \leq \Omega_2$  without feedback. This is followed by the analysis of an open loop tracker system, for which the transmission function is quoted. As above, rigid feedback for the motor or the whole system is considered and conditions for its stability are deduced. An equation of a parabola is derived which forms a geometrical locus of points of stability limits for the tracker system.

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On the problem of stability...

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D221/D305

In this case it is a parabola. The analysis indicates that the system is stable in the region  $OC_2$  if a certain condition is satisfied. Another tracker system is considered, having the open-loop transfer function

$$W(p) = \frac{K_R(1 + T_2p)}{p(-1 + T_1p) \cdot (1 + T_3p)} \quad (22)$$

This results in zone of stability bounded by a hyperbola; the author gives equations for its center and semi-axes, as well as the angle of inclination with respect to the coordinate axes. The region of stability can be increased by widening the "opening" of the hyperbola which goes over into a straight line, in the extreme case. This is achieved by application of negative feedbacks or their combination. These considerations may be applied to systems of a higher order. This article was recommended by the Kafedra avtomatiki i telemekhaniki (Department of Automation and Telemechanics). There are 2 figures and 8 Soviet-bloc references.

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On the problem of stability...

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S/146/61/004/005/004/011  
D221/D305

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki  
(Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: March 10, 1961

Fig. 1

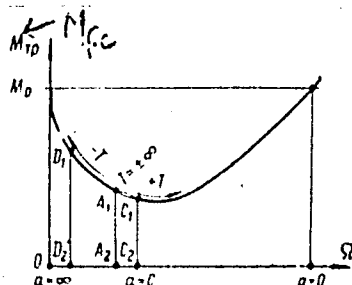


Рис. 1

Card 4/4

SOROKIN, A.N.; ANDRYUSHCHENKO, V.V.; MEREMINSKIY, A.I.

Effect of raising calves in stalls on the drop in the incidence of dictyocaulosis. Veterinariia 35 no.5:57-58 My '58. (MIRA 12:1)

1. Vototdel Rovenskogo oblsel'khozupravleniya (for Andryushchenko).
2. Rovenskaya oblastnaya vetbaklaboratoriya (for Mereminskiy).  
(Calves--Diseases and pests) (Lungs--Parasites)

GORDDETSKIY, A.A. [Horodets'kyi, O.O.]; KHOMUTOVSKIY, O.A. [Khomutovs'kyi, O.A.]; OLEJNIKOVA, T.N. [Oleynykova, T.N.]; ANDRYUSHCHENKO, V.V.

Electron microscopic study of kidneys during acute radiation sickness produced by radioactive strontium. Fiziol. zhur. [Ukr.] 6 no.3:405-414 My-Je '60. (MIRA 13:7)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, laboratoriya biofiziki.

(KIDNEYS) (RADIATION SICKNESS)  
(ELECTRON MICROSCOPY)

ANDRYUSHCHENKO, V.V.

272400

30280  
S/000/61/001/004/019/032  
0290/1303

AUTHORS: Gorodetskiy, A. A., Narupa, V. Ya., Ibramovskiy, O. A., Oleynikova, T. M., and Andryushchenko, V. V.

TITLE: Electronoscopic study of the lungs with chronic radiation sickness induced by radioactive strontium

PERIODICAL: Radiobiologiya, v. 1, no. 4, 1961, 564-568

TEXT: In previous research the authors found that the administration of radioactive strontium in doses sufficient to cause acute radiation sickness induced changes in the lung tissue (hyperemia, hemorrhage, etc.) after 1 - 2 days (Ref. 1: Fiziol. zh., 6, 1960), and with chronic radiation sickness after 2 - 3 days (Ref. 2: Tsz. dokl. nauchnoy konferentsii po probleme: "Lecheniye i diagnosticheskoye primeneniye radioaktivnykh izotopov (The Therapeutic and Diagnostic Use of Radioactive Isotopes)", Khar'kov, 1960). However, there were indications that submicroscopic lesions ensued much earlier. The present work was an attempt to check this. Tests were run on white rats.  $Sr^{90}$  in the form of its chloride

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Electronoscopic study of...

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S/200/01/001/004/019/032  
1203/2203

salt was injected into the rat's abdominal cavity in a dose of 0.32  $\mu$ c/g. The animals were killed off at periods ranging from 1 hour to 108 days after irradiation, and slides were prepared from their organs examined under an UM-100 (UM-100) electron microscope at magnifications of 1500 - 30,000. Only one hour after the administration of radioactive strontium, marked edema of the epithelial and endothelial cells and the connective tissue of the alveolar septa were noted. Particularly large vacuoles were distributed through the protoplasmatic plates of the endothelial and epithelial cells. The lesions affected all the strata of the alveolar septa, blood vessels, bronchi and the pleura. Dense dark granules appeared in the epithelial cells. The authors consider the changes in the membrane and connective tissue layers of the alveolar walls particularly noteworthy since they were of a marked dynamic nature, connected with the course of radiation sickness. In the early period of radiation sickness (1 - 7 days), the membranes become thickened, edematous, pultaceous and delaminated, while at later periods (40th, 90th and 108th days) they are densely packed. As radiation sickness develops, the layers of connective tissue thicken and

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33560

S/200/01/001/004/010/032  
B210/1303

Electronoscopic study of...

develop incorrectly orientated coarse fibers. Electronoscopic examination, therefore, reveals early changes in the cells and membranes of the lung tissue which, to a certain extent, explain the appearance of early hemorrhages in the lungs. The thickening and hardening of the membranes and connective tissue layers at later stages explains the deterioration in the gas metabolism in cases of chronic radiation sickness. There are 5 figures and 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The reference to the English-language publication reads as follows: F. N. Low, Anat. Rec., 117, 241, 1963.

ASSOCIATION: Institut fiziologii im. A. A. Bogomoletsa AN USSR (Institute of Physiology im. A. A. Bogomoletsa, AS UkrSSR), Kiev

SUBMITTED: February 13, 1961

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ANDRYUSHCHENKO, V.V.

Plate holder for the UEM 100 electron microscope. Zav.lab. 28  
no.2:230 '62. (MIRA 15:3)

1. Institut fiziologii AN USSR.  
(Electron microscope)

ACCESSION NR: AT4044493

S/0000/64/000/000/0164/0171

AUTHOR: Shur'yan, I.M., Andryushchenko, V.V., Rekun, G.M.

TITLE: Characteristics of the response of the hematopoietic system during its functional recovery following radiation damage

SOURCE: Vosstanovitel'nyye protsessy\* pri radiatsionny\*kh porazheniyakh (Recovery from radiation injuries); sbornik statey. Moscow, Atomizdat, 1964, 164-171

TOPIC TAGS: radiation sickness, hematopoiesis, bone marrow, leukopenia

ABSTRACT: The effect of radiation on hematopoiesis was studied in 60 male chinchilla rabbits 4, 8, 12, 16, 20, 24, and 30 days after irradiation (either  $p^{32}$  as  $Na_2HPO_4$ , 1.5 mc/kg i.p., or x-ray, 860 r). Both these doses caused the death of 50% within 30 days. In some animals which survived the acute radiation sickness, the blood picture was studied 2, 3, 6 and 12 months after irradiation. After injection of  $p^{32}$ , the peripheral blood picture began to recover within 20 days. The process was slow, however, and the majority of peripheral blood indices only returned to normal after half a year. Within a year, the peripheral blood picture did not differ from the original values. In the bone marrow, signs of hematopoiesis were noted 20 days after irradiation with  $p^{32}$ .

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ACCESSION NR: AT4044493

After 3-6 months the recovery of bone marrow activity was still incomplete. Within a year, however, the bone marrow in the 4 surviving animals was close to normal, as determined by the number of blood-forming elements and the myelogram. After x-irradiation, recovery already began in the peripheral blood 8 days later. Within a month most of the values were almost normal, and three months after irradiation the values were all normal. In the bone marrow the recovery process started 8-12 days after irradiation, and within 3 months all the values were almost identical to those in the preradiation period. It should be noted that out of the 14 animals which survived the acute radiation sickness caused by external irradiation (x-ray), only 2 died during the year, while only 4 out of 14 animals irradiated with p<sup>32</sup> survived for the same time. In another set of experiments, electronmicroscopic investigations were made on the effect of x-ray (500 r) on the bone marrow of rats. One hour after irradiation, many broken cells appeared. In individual cells degenerative forms of mitochondria were observed. Within 24 hours, there were increased numbers of plasma and reticular cells, along with degenerative changes in the nucleus and cytoplasmic organelles of many of the hematopoietic elements. Within three days the number of

Card 2/3

ACCESSION NR: AT4044493

abnormal cells was increased with the appearance of degenerative changes in all parts of the bone marrow, and on the fifth day there was a complete disappearance of normal cells. Within 2 weeks, signs of the recovery of hematopoiesis were observed, with the appearance of young forms. By the 24th day this activity was quite pronounced. Plasma cells increased after irradiation, but after 24 hours there were still no changes in the ultrastructure of the plasma cells. Within three days, however, degenerative changes appeared in the cells, becoming more pronounced after five days. After three weeks, when the degeneration in the bone marrow had become less marked, the plasma cells were still abnormal. "Post-mortem studies were carried out at the Laboratoriya morfologii Instituta fiziologii AN USSR (Morphology Laboratory of the Physiological Institute, AN Ukr SSR) under the direction of Prof. A.I. Smirnova-Zamkova. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 29Jan64

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: LS

Card 3/3

KLEBANOV, M.A., prof.; ROTOV, V.I., prof.; BOGAYEVSKIY, AT., dotsent;  
ANDRYUSHCHENKO, V.V.; GOVOROV, A.M., dotsent; KASSICH, Yu.Ya.;  
SHMALIY, K.V., kand. med. nauk; SOKALO, S.V.

Experimental study of chemoprophylaxis of tuberculosis.  
Prob. tub. no.1:51-58 '65. (MIRA 18:12)

1. Ukrainskiy institut tuberkuleza i grudnoy khirurgii,  
Khar'kovskiy zooveterinarnyy institut i Ukrainskiy institut  
eksperimental'noy veterinarii, Kiyev.

LIPATOV, Yu.S.; ZUBOV, P.I.; ANDRYUSHCHENKO, Ye.A.

Study of the effect of temperature on the turbidity of concentrated poly-methacrylic acid solutions. Vysokom. soed. 1 no.3:425-431 Mr '59.  
(MIRA 12:10)

1.Fiziko-khimicheskiy institut im. L. Ya. Karpova.  
(Methacrylic acid) (Turbidity)

ANDRYUSHCHENKO, Ye.B., mashinsit; GRIGOROV, P.A., mashinist

Contractor protection circuit. Elek.i topl.tiaga 3 no.8:  
39-40 Ag '59. (MIRA 12:12)

1. Depo Lozovaya Yushnoy dorogi.  
(Electric locomotives)  
(Electric circuit breakers)



S/078/63/008/003/015/020  
B117/B186

AUTHORS: Bergman, A. G., Andryushchenko, Yu. I.

TITLE: Melting-point diagram of the reciprocal system of chlorides and bromides of lithium and lead

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 3, 1963, 712-714

TEXT: Continuing the study of the quaternary reciprocal system Li, Pb, K || Cl, Br, the melting-point diagram for the system Li, Pb || Cl, Br was studied by the visual-polythermal method. The crystallization surface of the system investigated consists of two fields: the crystallization field (87%) of solid solutions of  $\text{Li}_2(\text{Cl,Br})_2$ , and that (13%) of solid solutions of  $\text{Pb}(\text{Cl,Br})_2$ . The two fields intersect on a common crystallization curve which descends steadily from the eutectic point at  $406^\circ\text{C}$  on the  $\text{Li}_2\text{Cl}_2 - \text{PbCl}_2$  side to  $322^\circ\text{C}$  on the  $\text{Li}_2\text{Br}_2 - \text{PbBr}_2$  side. The isotherms lying above  $25^\circ\text{C}$  showed a distinct ridge along the stabler diagonal of  $\text{Li}_2\text{Cl}_2 - \text{PbBr}_2$  on the crystallization surface of the solid

Card 1/2

S/072/63/008/003/015/010  
B117/R126

Melting-point diagram of the ...

solutions of  $\text{Li}_2(\text{Cl},\text{Br})_2$ . This ridge is largest for the  $500^\circ\text{C}$  isotherm. The position of the minimum at  $522^\circ\text{C}$  on the  $\text{Li}_2\text{Cl}_2 - \text{Li}_2\text{Br}_2$  curve, indicates that the solid solutions of  $\text{Li}_2(\text{Cl},\text{Br})_2$  do not decompose between  $52^\circ$  and  $340^\circ\text{C}$ . There are 3 figures. ✓

ASSOCIATION: Rostovskiy-na-Donu nauchno-issledovatel'skiy institut  
tekhnologii mashinostroyeniya (Rostov-na-Donu Scientific  
Research Institute of Machine Technology)

DATE: March 30, 1962

BERGMAN, A.G.; ANDRYUSHCHENKO, Yu.I.; BINEYEVA, R.K.

Fusibility in the ternary system consisting of chlorides of lithium, potassium, lead. Zhur. neorg. khim. 8 no.7:1693-1697 J1 '63. (MIRA 16:7)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya.  
(Alkali metal chlorides) (Lead chlorides)  
(Fused salts)

BERGMAN, A.G.; ANDRYUSHCHENKO, Yu.I.

System Li, K, Pb// Cl, Br. Zhur. neorg. khim. 9 no.5:1221-  
1228 My '64. (MIRA 17:9)

ANTHUSICHENKO, Yu.I.; BERGMAN, A.G.

Electroconductivity in the system Li, K, Pb // Br. Zhur. fiz. khim.  
39 no.3:672-677 Mr '65. (MIRA 18:7)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy institut tekhnologii  
mashinostroyeniya.

ANDRYUSHCHENKO, Yu.S., BAGIN, Yu.I., BASHKIRTSEV, A.A., BELEN'KOV, O.Ye.  
 BELINICHER, I.Sh., BUSHUYEV, N.M., VAGANOV, A.K., GASEEV, A.M.,  
 YKS'KOV, K.A., ZGIRSKIY, Ch.I., IGNAT'YEV, M.I., KORDSHKIN, Ye.N.  
 KUZ'MOV, N.T., PATSKEVICH, I.P., PICHAK, F.I., RAYTSES, V.B.,  
 RUDAKOV, A.S., SAFRYKIN, V.M., SIDOROV, F.F., UMINSKIY, Ye.A.  
 KHANZHIN, P.K., CHEREMOVSKIY, Yu.I., BUSHUYEV, N.M., kand.tekhn.  
 nauk, red.; DUGINA, N.A., tekhn.red.

[Manual for agricultural machinery operators] Pt. 3. Stationary  
 internal combustion engines, steam engines and windmills. Rural  
 electrification. Mechanization of production in animal husbandry.  
 Spravochnik mekhanizatora sel'skogo khoziaistva. Pt. 3. Statsionarnye  
 dvigateli vnutrennego sgoraniia, lokomobili i vetrodvigateli.  
 Elektrifikatsia sel'skogo khoziaistva. Mekhanizatsia proizvodstvennykh  
 protsessov v zhivotnovodstve. Pod red. N.M. Bushueva. Moskva,  
 Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry. 1957. 200 p.  
 (MIRA 11:9)

(Agricultural machinery)

L 41692-65 DWT(m)/EWP(1)/EWP(b) LJP(a) JD  
 ACCESSION NR: AP5008911 S/0076/65/039/003/0672/0677

AUTHOR: Andryushchenko, Yu. I. (Rostov-na-Donu); Bergman, A. G. (Rostov-na-Donu) 20  
19  
B

TITLE: A study of the electrical conductivity in the system  $\text{Li, K, Pb/Br}$

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 3, 1965, 672-677

TOPIC TAGS: electrochemistry; electroconductivity; bromide conductivity; conductivity isotherm; lithium bromide; potassium bromide; lead bromide

ABSTRACT: The specific conductivity was measured and its absolute and relative temperature coefficients were calculated for mixtures consisting of the bromides of lithium, potassium, and lead. The following systems were studied:  $\text{LiBr} - \text{KBr}$ ,  $\text{K}_2\text{Br}_2 - \text{PbBr}_2$ ,  $\text{PbBr}_2 - \frac{1}{2}\text{LiBr}_2$ , and the ternary system  $\text{Li, K, Pb/Br}$ . Graphs of the specific conductivity and absolute and relative temperature coefficients are illustrated for each of these systems. The conductivity isotherms of  $\text{K}_2\text{Br}_2 - \text{PbBr}_2$  and their temperature coefficients indicate the formation of the compounds  $\text{KBr} \cdot 2\text{PbBr}_2$  and  $2\text{KBr} \cdot \text{PbBr}_2$  in this system. The compound  $\text{KBr} \cdot 2\text{PbBr}_2$  is reflected on the isotherms of sections of the system  $\text{Li, K, Pb/Br}$  which are close to the crystallization temperature; it dissociates as the temperature is raised. The isoconductivity curves of the system  $\text{Li, K, Pb/Br}$  descend with an increasing

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L 41693-65  
ACCESSION NR: AP5008911

degree of curvature from the vertex of the more conductive component  $\text{Li}_2\text{Br}_2$  toward  $\text{K}_2\text{Br}_2$  -  $\text{PbBr}_2$ . Orig. art. has: 9 figures and 3 formulas.

ASSOCIATION: Rostovskiy-na-Donu nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya (Rostov-on-Don Scientific Research Institute of Machine-Building Technology)

SUBMITTED: 11 Nov 63

ENCL: 00

SUB CODE: 1C, EM

NO REF SOV: 011

OTHER: 003

Card 2/2



VOLKOV, V.F., dotsent, kand.tekhn.nauk; ANDRYUSHCHENKO, Yu.S., assistant

Air conditioning of crane cabins in hot departments of metallurgical plants. Trudy Ural. politekh. inst. no.108:79-88 '61.

(MIRA 16:9)

ANDRYUSHCHENKO, Yu.S.; BAGIN, Yu.I.; BASHKIRTSEV, A.A.; BELEN'KOV, G.Ye.;  
 BELINICHER, I.Sh.; BUSHUYEV, N.M.; VAGANOV, A.K.; GASHEV, A.M.;  
 YES'KOV, K.A.; ZGIRSKIY, Ch.I.; IGANT'YEV, M.I.; KORUSHKIN, Ye.N.;  
 KUZ'MOV, N.T.; PATSKEVICH, I.R.; PICHAK, F.I.; PAYTSES, V.B.;  
 HUDAKOV, A.S.; SAPRYKIN, V.M.; SIDOROV, F.F.; UMINSKIY, Ye.A.;  
 KHANZHIN, P.K.; CHEREMOVSKIY, Yu.I.; YERAKHTIN, D.D., kand. tekhn.  
 nauk, retsenzent; MAKAROV, M.P., inzh., retsenzent; TORBEYEV, Z.S.,  
 kand. tekhn. nauk, retsenzent; POLKANOV, I.P., kand. tekhn. nauk,  
 retsenzent; IGNAT'YEV, M.G., agronom, retsenzent; GUTMAN, I.M.,  
 inzh., retsenzent; YERMAKOV, N.P., tekhn. red.; SARAFANNIKOVA, G.A.,  
 tekhn. red.

[Reference manual for the agricultural machine operator] Spravochnik  
 mekhanizatora sel'skogo khoziaistva. Pt.2. [Repair of tractors and  
 agricultural machinery] Remont traktorov i sel'skokhoziaistvennykh  
 mashin. Pod red. N.M. Bushueva. Moskva, Gos. nauchno-tekhn. izd-  
 vo mashinostroit. lit-ry. 1957. 335 p. (MIRA 11:9)  
 (Agricultural machinery—Maintenance and repair)

ANDRYUSHCHENKO, Yu.S.; BAGIN, Yu.I.; BASHKIRTSEV, A.A.; BELEN'KOV, G.Ye.;  
 BELINICHER, I.Sh.; BUSHUYEV, N.M.; VAGANOV, A.K.; GASHEV, A.M.;  
 YES'KOV, K.A.; ZGIRSKIY, Ch.I.; IGNAT'YEV, M.I.; KORUSHKIN, Ye.N.;  
 KUZ'MOV, N.T.; PATSKOVICH, I.R.; PICHAK, F.I.; RAYTSES, V.B.;  
 RODAKOV, A.S.; SAPRYKIN, V.M.; SIDOROV, F.F.; UMINSKIY, Ye.A.;  
 KHANZHIN, P.K.; CHUREMOVSKIY, Yu.I.; YERAKHTIN, D.D., kand.tekhn.nauk;  
 retsenzent; MAKAROV, M.P., inzh., retsenzent; TORBEYEV, Z.S., kand.  
 tekhn.nauk, retsenzent; POLKANOV, I.P., kand.tekhn.nauk, retsenzent;  
 IGNAT'YEV, M.G., agronom, retsenzent; GUTMAN, I.M., inzhener, retsenzent;  
 SARAFANNIKOVA, G.A., tekhn.red.; YERMAKOV, N.P., tekhn.red.

[Manual for agricultural mechanizers] Spravochnik mekhanizatora  
 sel'skogo khoziaistva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.  
 lit-ry. Pt.1. [Tractors and automobiles, agricultural machinery and  
 implements, and operation of machine and tractor yards] Traktory i  
 avtomobili, sel'skokhoziaistvennye mashiny i orudiia, ekspluatatsiia  
 mashinno-traktornogo parka. Pod. red.N.M.Bushueva. 1957. 462 p.  
 (MIRA 10:12)

(Machine-tractor stations)

ANDRYUSHCHENKO, Z.

Results of over-all work organization. Mast.ugl.3 no.3:12 Mr '54.  
(MLRA 7:4)

1. Nachal'nik uchastka shakhty No.13-bis kombinata Stalinugol'.  
(Coal mines and mining)

S/120/62/000/004/014/047  
E192/E582

AUTHORS: Vasil'yev, A.A., Batskikh, G.I., Vasina, Yu.A. and  
Andryushchenko-Lutsenko, N.I.

TITLE: Multichannel precision digital system for measurement  
of the intensity of the magnetic field and time

PERIODICAL: Pribery i tekhnika eksperimenta, no. 4, 1962,  
84 - 89

TEXT: Electronic equipment for accurate measurement of  
instantaneous values of the magnetic field and time is described.  
The device is designed for the 7 GeV proton synchrotron and is  
primarily based on a continuous-discrete computing unit  
(discrete integrator). The input signal to the integrator is  
taken from the induction coils situated in the gaps of the  
electromagnets of the accelerator. The signal is converted into  
a corresponding "instantaneous frequency" of a frequency-  
modulated waveform, whose phase is then measured by means of an  
electronic counter. The output pulses corresponding to a given  
value of the magnetic field are obtained by employing a coinci-  
dence circuit which is connected to suitable elements of the  
Card 1/5

S/120/62/000/004/014/047  
E192/E382

Multichannel precision ....

electronic counter. Since the induction coil does not pick up the residual field, the integrator is used in two ways. In the case of instability of electromagnets exceeding the prescribed value of  $3 \times 10^{-4}$ , the average value of the field is obtained from the data acquired from the permalloy pick-ups situated in the gaps of practically all the electromagnets; on the other hand, for an instability not exceeding the limiting value, the integrator is switched-on by the pulse from a single permalloy pick-up situated in the measuring magnetic unit. Since the value of the magnetic field in the gap of an electromagnet is an accurate periodic function of time (with an error of less than 0.5%), various devices can be controlled by measuring the time counted from the instant of switching-on the electromagnet current, rather than measuring directly the strength of the field. These measurements can be made by means of a multichannel time pick-up (A.A. Vasil'yev, I.I. Grigor'yev, PTE, 1958, no. 3, 65). The discrete integrator and the multichannel time pick-up are identical, except for the generator which is frequency-modulated

Card 2/5

Multichannel precision ....

S/120/62/000/004/014/047  
E192/E382

in the case of the integrator and quartz crystal-stabilized in the time transducer. The electronic counters for both instruments are identical. The control of the position of the pulses in the integrator and the time transducer is carried out in steps, the minimum steps being 0.8 0e and 100  $\mu$ s, respectively. Continuous control can be achieved by using phantastron delay circuits. The operation of the integrator and time-transducer is discussed in some detail. There are 4 figures and 1 table.

ASSOCIATION: Radiotekhnicheskiy institut GKAE  
(Radio-engineering Institute, GKAE)

SUBMITTED: April 5, 1962

Card 3/3

83293

2308/only 18.7500  
2208

S/148/60/000/007/014/015  
A161/A029

AUTHORS: Minkevich, A.N.; Rastorguyev, L.N.; Andryushechkin, V.I.

TITLE: Diffusion Boride Layers on Metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallur-  
giya, 1960, Nr 7, pp 171-179

TEXT: Boride layer formation by diffusion on Mo, W, Nb, Zr and Ta was experimentally investigated. Three different boron-containing media were used: a molten borax bath (60% borax and 40% B<sub>2</sub>C), powdered boron carbide and powdered boron metal. References are made to previous investigations, data of which were used /Ref 1-8/. The molten bath was used with a temperature of 1,100-1,300°C; boration in powder was carried out in vacuum with 1,300-1,500°C. The microstructures of boride layers are shown (Figure 4) in photographs, viz. microstructures after bath boration in the upper row, after boration in powder in the bottom row. The boride layers were 0.20 to 0.45 mm deep and had 1,300-2,000 Vickers hardness (with 5 kg load), and microhardness of 2,300-2,900 and higher. The most effective means

Card 1/2



83293

Diffusion Boride Layers on Metals

S/148/60/000/007/014/015  
A161/A029

proved to be boron metal; borax bath with 40% boron carbide had somewhat lesser effect, and boron carbide powder the least. Formation of phases was observed which are absent in the equilibrium state ( $Ta_2B_5$ ). Boration raised the acid resistance of molybdenum in nitrohydrochloric acid 15 times and of zirconium 12 times (in 21 hours at  $20^{\circ}C$ ). The resistance to scale formation increased 21 times for Zr, 31 times for Ta and 14 times for Ti. The wear resistance of borated metals was dozens of times higher than that of non-borated ones and exceeded the wear resistance of case-hardened and quenched steel. The friction coefficient was reduced 1.5-2.0 times. There are 5 figures, 4 tables and 8 references: 4 are Soviet and 4 English. X

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: January 15, 1960

Card 2/2

MINKEVICH, A.N., kand.tekhn.nauk; Prinimali uchastiye: ANDRYUSHECHKIN, V.I.;  
AKULINICHEV, Ye.V.; SHUR, N.F.

Boride diffusion layers on metals. Metalloved. i term. obr. met.  
no.8:9-15 Ag '61. (MIRA 14:8)  
(Case hardening) (Borides)

ACCESSION NR: AP4020250

S/0129/64/000/003/0053/0057

AUTHOR: Kidin, I. N.; Andryushechkin, V. I.

TITLE: Diffusion of chromium out of a galvanized layer into iron and steel during high speed electric heating

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1964, 53-57

TOPIC TAGS: induction heating, chrome diffusion, armco iron, galvanic chrome-plating, steel, heating rate

ABSTRACT: Recognizing the need for an accelerated induction heating and steel impregnation with metals, the authors studied the effect of the heating rate on the diffusion of chrome in Armco iron (0.02% C), No. 45 steel (0.47% C) and U8 steel (0.82% C). Rods were rolled into 0.5 mm thick strip and 80 x 0.5 x 5 mm specimens cut out. The structure was stabilized by vacuum annealing at 1000 C (Armco iron), 860 C (45 steel) and 760 C (U8 steel) for 90 minutes. Then, the specimens were treated by galvanic chromizing until the layer thickness amounted to 30-40 microns. By increasing the heating from 10 C/min to 3000 C/sec the depth of the penetration of chromium atoms is increased 2 to 3 times for iron and 4 to

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ACCESSION NR: AP4020250

6 times for steel. The accelerating effect of a high-speed heating process is the more conspicuous the higher its temperatures. The authors, therefore, recommend high temperatures in accordance with an increase in the heating rate. In carrying out diffusion processes without a holding period or with a short holding period (0.5 min) high-speed heating should only be applied above 1100 to 1150 C because the diffusion process is more complete below this temperature range under conditions of a gradual heating.  $Cr_{23}C_6$  was not observed after the diffusion of chrome in 45-type and U-8 type steel at a high heating rate. The authors assume that the effect of the heating rate on the diffusion of chrome in iron and steel may be attributed to the peculiarities of the structural state of austenite as it forms during rapid heating. Orig. art. has: 3 figures.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 00

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: MM

NO REF SOV: 008

OTHER: 002

Card 2/2

L 41142-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(s) JD

ACCESSION NR: AP404907

S/0148/64/000/011/0174/0179

AUTHOR: Kidin, I. N.; Andryushchkin, V. I.; Maslennikov, S. B.; Yegorshina, T. V.

TITLE: Concentration gradients after saturation by chromium during rapid heating

SOURCE: IVUZ. Chernaya metallurgiya, no. 11, 1964, 174-179

TOPIC TAGS: chromium; diffusion; chromium saturation, galvanic chromium coating, clad iron, clad steel

ABSTRACT: The diffusion of chromium from a galvanic coating into Armco iron (0.2% C) and U8 steel (0.82% C) under varying conditions of heating was studied. Preparation, heat treatment, and galvanic coating of samples with chromium was effected by methods described previously by the authors. Heating was accomplished at speeds of 10 degrees/min. in an evacuated furnace (pressure below 0.1 mm Hg) with quartz fittings, and at 50 and 300 deg/min. in a vacuum chamber by passing an electric current of industrial frequency through the samples. Cooling speed from the saturation temperature to 600C was constant at 90-100 deg/sec. X-ray spectral analysis of microvolumetric areas was used to measure the diffusion. The photographed patterns were compared with known x-ray patterns for all samples. A French microanalyzer was used to study a volume of 5 cubic microns with an accuracy, when Cr content was below 30%, of 2%. For the iron, the region having a 2-4%

Card 1/2

L 41142-65

ACCESSION NR: AP4049073

$\alpha$ -solid solution with the chromium was impervious to nitric acid. Heating at 10 deg/min. produced a layer from 5 to 55 microns thick when held for a half a minute at 1000 or 1220C. All curves showed discontinuities corresponding to the change in solubility between  $\alpha$  and  $\delta$ -phases, and these data were reaffirmed by the measurements of the microthermoelectromotive force, which demonstrated the formation of two layers which appeared at all temperatures. The  $\alpha$ -phase is extended with increased temperature and speed of heating, but above 1200C the chromium tends toward complete solubility in the  $\alpha$ -phase, thus diffusing completely through the  $\alpha$ -phase. Orig. art. has: 4 graphs and 1 photomicrograph.

ASSOCIATION: Moskovskiy Institut stal i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 09 Apr 64

ENCL: 00

SUB CODE: MM

NO REF SOY: 012

OTHER: 002

Card 2/2

ANDRYUSHECHKINA, A.V.; NIKOLAYEVA, L.P.

Effect of water from the Sokolovogorskiy spring on the activity  
of certain enzymes of the gastro-intestinal tract. Klin.med.,  
Moskva 29 no.5:89 May 1951. (CLML 20:9)

1. Of the Department of Biological Chemistry (Head--Prof. N.N.  
Ivanovskiy), Saratov Medical Institute, Saratov.

U S S R

Proteolytic activity of the tissues of cancer tumors. A. V. Andryushchikina and L. P. Nikolaeva. *Vopr. onkolog. i Radiats. Biol.* 1954, No. 18488. — Proteolytic activities of the enzyme preps. (glycerol and citrate salts) from the tissues of cancer tumors as well as from normal-appearing tissues surrounding the tumors were investigated. The same tissues were used as protein substrates. The expts. from the tissues investigated had their max. activities at pH 3.8 and 6.2. The enzyme preps. obtained from the tumor tissues hydrolyze the healthy tissues surrounding the tumor more easily than the tumor tissues. Proteases of the surrounding tissues also hydrolyze the tumor tissues. The effect of different biologically active substances on the proteolytic activity of the enzyme preps. also has been studied. Nicotinic acid, salts of cholic acid, and folliculin decreased the activity in all instances, and vitamins A, B<sub>1</sub>, C, and D in most cases (the effects of the vitamins depend on the exptl. conditions as well as on the material investigated). E. Wierbicki.



ANDRYUSHCHENKO A. V.

# U.S.S.R.

The nucleoproteins and nucleic acids in the liver of persons who died from acute dystrophy of the liver. A. V. Andryushchikina and L. P. Nikolova (Med. Inst. Saratov Univ. Saratov, U.S.S.R.). Med. Zh., No. 10, 40-5 (1964). The nucleoproteins were acid. into 3 fractions: (1) sol. in 0.14 M NaCl, (2) sol. in 0.1 M NaCl, and (3) sol. in 0.2% NaOH. Analytical data illustrate the decrease of nucleoproteins, especially those of fraction 2, in persons who died from hepatitis as compared with those found in persons who died from trauma. The liver tissue of those who died from hepatitis was also detd. for the total sum of nucleoproteins and nucleic acids and separately for ribonucleic and deoxyribonucleic acids. The total sum was calcd. on the basis of the P and N findings. The N was found to be 1/2 and the P 1/3 of those who died from trauma. The ribonucleic and deoxyribonucleic acids were 1/2-1/3 of controls. The fact of the loss of P being greater than that of N coupled with the sharp decrease of the acids points to the possibility of loss of phosphoric acid and changes in the chemical nature of the nucleoproteins and nucleic acids. This accounts for the impaired ability of the liver to synthesize proteins and bears out A. and N.'s previous contention that the cause of the autolysis of the liver is the disturbance of normal relation between the processes of proteolysis and protein synthesis. The chem. findings concerning the decrease of nucleoprotein and nucleic acids were confirmed by histological data.

A. S. Mirkin

ANDRYUSHECHKINA, L.V.

Metabolism of nucleoproteins and uricic acids in Botkin's disease. A. V. Andryushchikina and L. P. Nizheleva (Sverdlovsk, USSR). *Byull. Eksp. Biol. Med.* 1966, No. 10, 95-7 (1966). A decrease of nucleoproteins and uricic acids was found in Botkin's disease. An increased excretion of uricic bases indicated that the oxidation of nucleoproteins and uricic acids did not reach the final stage of uric acid. At the height of the disease the amt. of the uricic acid was considerably diminished but rises to nearly normal at recovery. The disturbed metabolism of the nucleoproteins and uricic acids is one of the causes of the impaired oxidation-reduction processes found in Botkin's disease. A.S. Michin.

ANDRYUSHECHKINA, A.V.

Formation of an amide of nicotinic acid in various animal tissues.  
Trudy Sar. gos. med. inst. 26:135-137 '59. (MIRA 14:2)

1. Saratovskiy meditsinskiy institut, kafedra biokhimii (zav.-  
prof. N.N. Ivanovskiy).  
(NICOTINIC ACID)

ANDRYUSHECHKINA, A.V.; NIKOLAYEVA, I.P.

Deoxyribonucleic and ribonucleic activity of the blood serum and  
urine in infectious hepatitis. Trudy Sar. gos. med. inst. 26:138-  
140 '59. (MIRA 14:2)

1. Saratovskiy meditsinskiy institut, kafedra biokhimii (zav. -  
prof. N.N. Ivanovskiy).  
(ENZYMES) (HEPATITIS, INFECTIOUS) (BLOOD--EXAMINATION)  
(URINE--ANALYSIS AND PATHOLOGY)

NIKOLAYEVA, L.P.; ANI RYUSHECHKINA, A.V.

Metabolism of muceloproteins and nucleic acids in the S-and R-forms  
of some types of micro-organisms. Trudy Sar. gos. med. inst. 26:233-  
237 '59. (MIRA 14:2)

1. Saratovskiy meditsinskiy institut, kafedra biologicheskoy  
khimii (zav.-prof. N.N. Ivanovskiy).  
(NUCLEOPROTEINS) (NUCLEIC ACIDS) (SARCINA LUTEA)  
(ESCHERICHIA COLI) (STAPHYLOCOCCUS)

ANDRYUSHECHKINA, A.V.; NIKOLAYEVA, L.P.; FREYDMAN, S.L.

Colorimetric method for the determination of desoxyribonucleic acid  
in the tissues of animals and in the cells of microorganisms.  
Lab. delo 7 no.1:7-8 Ja '61. (MIRA 14:1)

1. Kafedra biologicheskoy khimii (zav. - prof. N.N. Ivanovskiy)  
i Kafedra farmakologii (zav. - dotsent B.G. Volynskiy) Saratovskogo  
meditsinskogo instituta.  
(NUCLEIC ACIDS) (COLORIMETRY)

Author: SHECHINA, A.N.; NIKOLAYOVA, L.F.

Characterization of the metabolism of phosphorus-containing compounds  
in S and R forms of some micro-organism species. Mikrobiologiya 31  
no.4:641-645 31-4q 1971. (MIRA 18:3)

1. Saratovskiy gosudarstvennyy meditsinskiy institut.

ANDRYUSHENKO, A.I., doktor tekhn,nauk

Some data on the development of power engineering in England.  
Teploenergetika 7 no. 12:81-82 D '60. (MIRA 14:1)

(Great Britain--Electric power plants)



USSR / Cultivated Plants. Fruits, Berries.

M-7

Abs Jour : Ref Zhur. Biologiya, No 13, 1958, No. 58735

Author : Andryushenko, D. P.  
Inst : Moldavian Scienc.-Research Institute of Horticulture,  
Vini and Viticulture  
Title : Cultivation of Apple and Pear Trees on Dwarf Wildings  
in Moldavia

Orig Pub : Tr. Mold. n.-i. in-t sadovodstva, vinogradarstva i  
vinodeliya, 1957, 3, 63-129

Abstract : The results of a 10 year long study of agrobiological  
peculiarities of apple and pear trees, grafted on  
dwarf wildings, are given. The studies were carried  
out in kolkhoz' and sovkhov' of all fruit bearing zones  
of the Moldavian SSR. It is recommended to utilize  
for industrial cultivation of apple tree on dwarf  
wildings the following varieties: yellow paradizka

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(type IX), mloevskiy dusen (type IV) and the common  
dusen (type II). The local form of quince-Orgoovskaya  
No 3 is recommended for the pear tree. The best  
varieties for cultivation on dwarf wildings are:  
winter, 3 fall and 3 summer varieties for the apple  
trees, and 7 winter, 4 fall and 3 summer varieties are  
recommended for the pear trees. Indications on dis-  
tances at planting, of norms of fertilization and  
methods of pruning are given. -- A. Ch. Kolli

Card 2/2

. Avtomatika i telemekhanika, 18, fasc.1,92-92 (1957) CARD 2 / 2      PA - 1945

The probability of the occurrence of consequences (complications) on the occasion of such disturbances of the electric circuit grows in the case of an assembly method shown by means of a further diagram.

Conclusions: When studying the problem of increasing the operation reliability of automatic regulators, also the problem of assembling the system must be taken into account.

INSTITUTION:

ANDRYUSHIN, N.F.; BULATOV, B.P.

Backscattering of gamma rays from spherical surfaces.  
Atom. energ. 19 no.4:392-393 0 '65. (MIRA 18:11)

L 26726-66 EWT(1)/EWA(h)

ACC NR: AP6013511

SOURCE CODE: UR/0120/66/000/002/0119/0123

AUTHOR: Andryushin, N. F.; Antonov, Ye. A.; Bulatov, B. P.; Koridalin, V. Ye.; Strelkov, A. S.

ORG: Institute of Physics of the Earth AN SSSR, Moscow (Institut fiziki Zemli AN SSSR)

TITLE: A wide-range detector of light pulses

SOURCE: Pribery i tekhnika eksperimenta, no. 2, 1966, 119-123

TOPIC TAGS: light pulse, radiation detector, photomultiplier

ABSTRACT: A wide-range device for detecting intermittent light pulses is described. The basic element of the unit is a photomultiplier with alloyed dynodes. The output voltage pulses are taken from load resistors connected in the dynode circuits and fed to the measurement system. With the proper supply voltage and a slight correction in the voltage distribution between dynodes, there is a difference of an order of magnitude between the sensitivities of two adjacent dynodes. A detector with a linear dynamic range covering four orders of magnitude in the intensity of light pulses was made by taking the signals from four dynodes. Various types of photomultipliers were studied by modulator control of the photocurrent and by exposing the photocathode to short bursts of light. The experimental conditions and procedure are briefly described. The photomultipliers used were the FEU-13, -15 and -16 with alloyed dynodes and the

UDC: 621.383.5:535.5

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L 26726-66

ACC NR: AP6013511

FEU-27 and -31 with antimony-caesium coated dynodes. Both methods were used for studying the miniature FEU-15. Typical dynode output curves for this tube are given. The dynodes have a linear output range of more than 6--8 v with a 5% deviation from linearity. Formulas are given for determining signal magnitude in the linear region of the output curve for a given measurement rank, as well as for finding the sensitivity of any rank. The linearity of the dynode characteristics was studied with a direct-current component through the photomultiplier. It was found that the voltage across the dynode gap decreases as the gap approaches the anode. There is a simultaneous increase in the voltages across the dynode gaps closest to the photocathode since the total voltage across the photomultiplier remains constant. This is due to the initial increase in signal magnitude. A further increase in the anode current reduces the pulse amplitude from the dynode as a result of current limiting in the subsequent dynode gap due to the space charge. Thus there is a reduction in the difference between pulse currents in the preceding and succeeding dynode gaps. The sign of this difference may change when the anode current reaches a high enough value, with a resultant change in the polarity of the signal from the dynode. It is found that the direct current through the photomultiplier should be much less than the divider current for normal operation of the device. The authors are grateful to V. S. Yuzgin for participation in this work. Orig. art. has: 8 figures, and 2 formulas. [14]

SUB CODE: 20/

SUBM DATE: 11Mar65/

ORIG REF: 003/

ATD PRESS: 4258

Card 2/2

FEDOROV, A.P.; AVER'YANOV, L.I.; KHLOPOTOV, N.N.; ANDRYUSHIN, A.K.

Steering gears of single-engine rubber-tired excavators and  
cranes. Stroil. i dor.mashinostr. 4 no.2:3-5 P '59.  
(MIRA 12:2)  
(Excavating machinery) (Cranes, derrick, etc.)

ANDRYUSHIN, F.V.

Machine for cutting waterproofing material and kraft-paper.  
Stroi. truboprov. 6 no.4:23 Ap '61. (MIRA 14:6)

1. Master Stroitel'no-montazhnogo upravleniya No.74 tresta No.7  
Minstroya RSFSR (st.Zheleznodorozhnaya Moskovskoy oblasti).  
(Paper-cutting machines)

ANDRYUSHIN, I.A.; ROSHCIN, Yu.V.; CHEBOTAREVA, L.D.; ERIVANSKIY, Yu.A.

Expediency of radiometric dressing of uranium ores and selection of  
an optimum separation level during the dressing. Atom. energ. 19 no.1:  
79-80 J1 '65. (MIRA 18:7)



ANDRYUSHIN, I.A.

New radiometric separator and its application for the concentration of uranium ores. Atom. energ. 11 no.3:279-281 (MIRA 14:9)  
(Canada--~~Separators~~ (Machines)) (Uranium ores)

L 4389-66 DM

ACC NR: AP5028410

SOURCE CODE: UR/0089/65/019/001/0079/0080

AUTHOR: Andryushin, I. A.; Roshchin, Yu. V.; Chebotareva, L. D.; Erivanskiy, Yu. A. <sup>20</sup><sub>AB</sub>

ORG: none

TITLE: Expediency of radiometric uranium ore dressing and the choice of the optimum level of separation during dressing

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 79-80

TOPIC TAGS: uranium, fissionable metal ore, mining engineering

ABSTRACT: Equations are derived for computing the economic effect of ore concentration, the conditions for expedient and optimum concentration, the optimum level of separation, and the condition for expediency of concentration for optimum technological indices. Orig. art. has: 16 formulas. NA

SUB CODE: MM, GO, NP / SUBM DATE: 09Sep64 / ORIG REF: 002 / OTH REF: 001

Card 1/1

UDC: 622.7:553.495

ACC NR: AF6034102 (A) SOURCE CODE: UR/0089/66/021/004/0298/0300

AUTHOR: Andryushin, N. F.; Bulatov, B. P.; Fradkin, G. M.

ORG: none

TITLE: Certain characteristics of the field of back-scattered gamma radiation inside working spaces

SOURCE: Atomnaya enegiya, v. 21, no. 4, 1966, 298-300

TOPIC TAGS: gamma radiation, gamma scattering, radiation dosimetry, radiation hazard, model test

ABSTRACT: The authors have verified results obtained by model tests on the doses of scattered  $\gamma$  radiation in rooms and their distribution, and checked them in a real chamber intended for work with powerful  $\gamma$  radiation, with a wall thickness of 100 cm and dimensions 440 x 320 x 260 cm. The source was  $\text{Co}^{60}$  with activity 1.9  $\mu\text{curie}$  and  $\text{Cs}^{137}$  with activity 14  $\mu\text{curie}$ . The detector was a gas-discharge STS-5 counter tube. The scattered  $\gamma$  radiation was measured against the background of the primary radiation by using lead foils as filters. A table of the  $\gamma$  ray energy accumulation factors for different scattering substances (water, concrete, aluminum, iron, lead) is presented. The results confirm the earlier results, obtained with the models, that the accumulation factors increase with increasing chamber dimensions and reach the limiting values, equal to the accumulation factors when reflected from flat barriers, at linear dimensions larger than 4 - 6 mean free paths of the primary radiation quanta in the wall

Cord 1/2 UDC: 539.122: 539.121.72: 621.039.58

ACC NR: AP6034102

material. The accumulation factor is defined as the ratio of the  $\gamma$  radiation flux densities measured with and without the scatter. Orig. art. has: 4 figures, 3 formulas, and 1 table.

SUB CODE: 18/ SUBM DATE: 11Apr66/ ORIG REF: 005/ OTH REF: 003

Card 2/2

ANDRYUSHIN, O.S.; POPOV, B.M.

Feature of using an extracting injector electrode for stabilizing  
and modulating the ion current of a cyclotron on the internal  
target. Fiz. elek. no.1:95-106 '62. (MIRA 17:1)

ANDRYUSHIN, P.I., polkovnik meditsinskoy sluzhby

Special training of garrison physicians. Voen.-med.zhur.  
no.7:19-21 J1 '59. (MIRA 12:11)  
(MILITARY MEDICINE, educ)

ANDRYUSHIN, V.A.

The TLR-80-type ribbon loom. Bul.tekh.-ekon.inform. no.5:43-44  
'58. (MIRA 11:7)

(Looms)

ANDRYUSHIN, V.A.

The TO-175 multiple box loom. Biul.tekh.-ekon.inform. no.12:  
45-47 '58. (MIRA 11:12)

(Looms)



ANDRYUSHIN, V.A.

The AT-175-L6 automatic loom. Biul.tekh.-ekon.inform.  
no. 3:42-44 '60. (MIRA 13:6)  
(Looms)

ANDRYUSHIN, V.A.

The TKP-125-L circular loom. Biul.tekh.-ekon.inform.  
no.7:41-42 '60. (MIRA 13:7)  
(Looms)

ANDRYUSHIN, V.A.

The AT-100-L5 automatic loom. *Biul.tekh.-ekon.inform.* no.6:46-48  
'60. (MIRA 13:8)

(Looms)

ANDRYUSHIN, V.A.

The AT4-175-Sh automatic four-shuttle loom. Biul.tekh.-ekon.  
inform. no.3:44-46 '61. (MIRA 14:3)  
(Looms)